



PO No	Supplier	Line Item No	Ret No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038754	ACI001-VC	1	1	Net 30	M1010S16GA	1010/1025 sheet 16 GA : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf				32	1/12/2018	32	S032204	S032204	Stock	1/15/2018	\$ 1.50 / sf	0		\$47.96	Acier Ouellette Inc.
		2			M1010S18GA	1010/1025 Sheet .048 : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf				64		64	S032205	S032205	Stock	1/15/2018	\$ 1.60 / sf	0		\$102.34	Acier Ouellette Inc.
		3			M1010S20GA	1010/1025 Sheet : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf				32		32	S032206	S032206	Stock	1/15/2018	\$ 1.20 / sf	0		\$38.38	Acier Ouellette Inc.
		4			M2024T3S.032	2024-T3 .032 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf				48		48	S032207	S032207	Stock	1/15/2018	\$ 4.49 / sf	0		\$215.60	Acier Ouellette Inc.
		5			M2024T3S.040	2024-T3 .040 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf						48	S032208	S032208	Stock	1/15/2018	\$ 4.23 / sf	0		\$202.94	Acier Ouellette Inc.
		6			M2024T3S.050	2024-T3 .050 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf						48	S032209	S032209	Stock	1/15/2018	\$ 7.15 / sf	0		\$343.24	Acier Ouellette Inc.
		7			M2024T3S.080	2024-T3 .080 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf						48	S032210	S032210	Stock	1/15/2018	\$ 11.36 / sf	0		\$545.46	Acier Ouellette Inc.
		8			M304S11GA	304/316 0.125 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				64		64	S032211	S032211	Stock	1/15/2018	\$ 12.23 / sf	0		\$782.71	Acier Ouellette Inc.
		9			M304S12GA	304/316 0.100" Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				32		32	S032212	S032212	Stock	1/15/2018	\$ 12.08 / sf	0		\$386.56	Acier Ouellette Inc.
		10			M304S18GA	304/316 .050 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				160		160	S032213	S032213	Stock	1/15/2018	\$ 5.36 / sf	0		\$856.80	Acier Ouellette Inc.
<b>Total:</b>										<b>576</b>		<b>576</b>								<b>\$2,831.37</b>	

**ACIER OUELLETTE INC.**

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

**Order - Sales****Copy**

C000069188

**Billed to**  
DART AEROSPACE LTD1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7**Shipped to**

, Ontario,

Att : CHANTAL LAVOIE Tél: 613-632-5200

**Delivery Route** 5

**Customer N°** CLT0001056  
**Date** 2018/01/10  
**Delivery date** 2018/01/12  
**Your order N°** 38754  
**Processed by** Josianne Bourdon  
**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days  
**Page** 1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	S/O	IN	I	S	C	OUT
1 HR SHEET 16G (4 X 8) 1011 FEH-16G48 3008 1 X 4' X 8' HEAT: 025204-05	80.00	32.00	PI2_\$CLB	1.00							
2 CR SHEET 18G (4 X 8) 1018 FECH-18G48 3280 2 X 4' X 8' HEAT: 162B05571 / 162B05871	128.00	64.00	PI2_\$CLB	2.00							
3 CR SHEET 20G (4 X 8) 1018 FECH-20G48 3282 1 X 4' X 8' HEAT: 7PB0060630	48.00	32.00	PI2_\$CLB	1.00							
4 ALU SHEET .032 (20G) 2024-T3 (4 X 12) FEAL-0324122024 3093 1 X 4' X 12' HEAT: 23717181 AC12663-SA-11/01	21.65	48.00	PI2_\$CLB	1.00							

NIR : R-109516-6

Next Page...

**ACIER OUELLETTE INC.**

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Md: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Md: 514-336-4246 Ext.: 866-456-4242

**Order - Sales****Copy**

C000069188

**Billed to**  
DART AFROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

**Shipped to**  
  
Ontario,  
Att : CHANTAL LAVOIE Tél.: 613-632-5200  
**Delivery Route** 5

**Customer N°** CLT0001056  
**Date** 2018/01/10  
**Delivery date** 2018/01/12  
**Your order N°** 38754  
**Processed by** Josianne Bourdon  
**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days  
**Page** 2

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
5 ALU SHEET .040 (18G) 2024-T3 5A (4 X 12) FEAL-0404122024A 3117 1 X 4' X 12' HEAT: 219547B7	27.02	48.00	PI2_\$CLB	1.00							
6 ALU SHEET .051 (16G) 2024-T3 (4 X 12) FEAL-0514122024 3142 1 X 4' X 12' HEAT: 58968/01/00 AC12663-SA-11/01	34.46	48.00	PI2_\$CLB	1.00							
7 ALU SHEET .081 (12G) 2024-T3 (4 X 12) FEAL-0814122024 3192 1 X 4' X 12' HEAT: 223973B9 AC12663-SA-11/01	54.77	48.00	PI2_\$CLB	1.00							
8 SHEET SS 11G SS304-2B (4 X 8) FESS-11G4830428 3402 2 X 4' X 8' HEAT: 459P	336.00	64.00	PI2_\$CLB	2.00							

NIR : R-109516-6

Next Page...

**ACIER OUELLETTE INC.**

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Md: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 MB: 514-336-4246 Ext.: 866-456-4242

**Order - Sales****Copy**

CO00069188

**Billed to**  
DART AEROSPACE LTD  
  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

**Shipped to**  
  
, Ontario,  
Att : CHANTAL LAVOIE Tél.: 613-632-5200  
  
**Delivery Route** 5

**Customer N°** CL10001056  
**Date** 2018/01/10  
**Delivery date** 2018/01/12  
**Your order N°** 38754  
**Processed by** Josianne Bourdon  
**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days  
**Page** 3

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
9 SHEET SS 12G SS304-2B (4 X 8) FESS-12G483042B 3407 1 X 4' X 8' HEAT 471Y	147.01	32.00	PI2_\$CLB	1.00							
10 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 5 X 4' X 8' HEAT 088E SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE	336.00	160.00	PI2_\$CLB	5.00							
			\$	0.00							

**Total Weight (LBS) :** 1 212.91

NIR : R-109516-6

**Conditions :**  
All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and its warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time	Customer's Signature	Y	M	D

**Total (\$CAD)** 3 984.31  
**Deposit** 0.00  
**Balance** 3 984.31



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M10105166A  
 DATE: JAN 12 2018

PO / BATCH NO.: 038754/5032204

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 32<sup>0.2</sup>  
 QUANTITY INSPECTED: 32<sup>0.2</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 166  
 THICKNESS RECEIVED: 166  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	Astm A 1011
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat #02520405
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>11</u> <u>9-89</u> DATE: <u>JAN 12 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. M1010-S	REV. A SHEET 1 OF 1
DATE 01.06.13		TITLE 1010-1025 SHEET	SCALE N.T.S.
A	01.06.13	NEW ISSUE	
A1	04.03.09 <i>[Signature]</i>	ADD ASTM A1008 AND COLD ROLLED	

PURCHASE MATERIAL:

*[Handwritten circle around 1010-1025]*  
AISI 1010-1025 OR ASTM A36 / A366 / A1008  
OR CSA C40-21, 38W / 44W / 50W / 60W / 70W

MINIMUM YIELD TENSILE STRENGTH = 28 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 42 KSI

COLD ROLLED

PART NUMBER:

M1010-S | TT | GA    WHERE TT = GAUGE THICKNESS  
          | GA |

EG. 16 GAUGE STEEL = M1010-S16GA

RELEASED  
01.06.15 *[Signature]*

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M10105206A  
 DATE: JAN 16 2018

PO / BATCH NO.: 038234/5032206

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 32<sup>1/2</sup>  
 QUANTITY INSPECTED: 32<sup>1/2</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 206A  
 THICKNESS RECEIVED: 206A  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	Astm A1008
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 7PB0060630
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**DART**



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. M1010-S	REV. A SHEET 1 OF 1
DATE 01.06.13		TITLE 1010-1025 SHEET	SCALE NTS
A	01.06.13	NEW ISSUE	
A1	04.03.09 <i>[Signature]</i>	ADD ASTM A1008 AND COLD ROLLED	

PURCHASE MATERIAL:

*real*  
ASTI 1010-1025 OR ASTM A36 / A366 / A1008  
OR CSA G40-21, 38W / 44W / 50W / 60W / 70W

MINIMUM YIELD TENSILE STRENGTH = 28 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 42 KSI

COLD ROLLED

PART NUMBER:

M1010-S TT/GA WHERE TT = GAUGE THICKNESS  
GA

EG. 16 GAUGE STEEL = M1010-S16GA

RELEASED  
01.06.15 *[Signature]*

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M10105186A  
 DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032205

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 64P<sup>12</sup>  
 QUANTITY INSPECTED: 64P<sup>12</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .048  
 THICKNESS RECEIVED: .048  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	<u>Astm A1008</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>Heat# 162B05571/162B05871</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. M1010-S	REV. A SHEET 1 OF 1
DATE 01.06.13		TITLE 1010-1025 SHEET	SCALE NTS
A	01.06.13	NEW ISSUE	
A1	04.03.09 <i>[Signature]</i>	ADD ASTM A1008 AND COLD ROLLED	

PURCHASE MATERIAL:

*ψ*  
AISI 1010-1025 OR ASTM A36 / A366 / A1008  
OR CSA G40-21, 38W / 44W / 50W / 60W / 70W

MINIMUM YIELD TENSILE STRENGTH = 28 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 42 KSI

COLD ROLLED

PART NUMBER:

M1010-S TT/GA WHERE TT = GAUGE THICKNESS  
GA

EG. 16 GAUGE STEEL = M1010-S16GA

RELEASED  
01.06.15 *[Signature]*

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 12024735.032  
DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032207

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 48112  
QUANTITY INSPECTED: 48112  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.32  
THICKNESS RECEIVED: 0.32  
SHEET SIZE ORDERED: 4x12  
SHEET SIZE RECEIVED: 4x12

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	Ams-QQ A-250
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	Heat # 23717184
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9.89 JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037  
OR ASTM B209

PART NUMBER: M2024T3S XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)  
EG. 0.063" THICK SHEET = M2024T3S.063

PREFERRED SIZE: XXX BY 4FT BY 10FT

RELEASED  
R 2009-03-23  
JNS

B	REFORMAT DWG. ADD ASTM B209 SPEC (ZND8-1), PAR 09-020A	CP	09.07.07
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.07		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M2024T3S			
SHEET 1 OF 1			
TITLE 2024-T3 SHEET SPEC			
SCALE NTS			
DATE 09.07.07			
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M2024735.040  
 DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032208

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 48012  
 QUANTITY INSPECTED: 48012  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .040  
 THICKNESS RECEIVED: .040  
 SHEET SIZE ORDERED: 4X12  
 SHEET SIZE RECEIVED: 4X12

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	Am5-QQ-A-250
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	Heat # 21954787
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>		SIGNED OFF BY: _____	
DATE: <u>11</u>		DATE: _____	
	<u>9-89</u>		
	<u>JAN 16 2018</u>		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**SPECIFICATION CONTROL DRAWING**

PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037  
OR ASTM B209

PART NUMBER: M2024T3S | XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)  
EG. 0.063" THICK SHEET = M2024T3S.063

PREFERRED SIZE: .XXX BY 4FT BY 10FT

**RELEASED**  
R 2009-03-23  
WJ

B	REFORMAT DWG. ADD ASTM B209 SPEC (ZIN D8-1), PAR	CP	09.07.07
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.07		

DART AEROSPACE LTD	REV. B
HAWKESBURY, ONTARIO, CANADA	SHEET 1 OF 1
DRAWING NO. M2024T3S	SCALE
TITLE	2024-T3 SHEET SPEC
NTS	

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M2024735.050  
 DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032209

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 48 P12  
 QUANTITY INSPECTED: 48 P12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 050  
 THICKNESS RECEIVED: 050  
 SHEET SIZE ORDERED: 4X12  
 SHEET SIZE RECEIVED: 4X12

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>AMS-QQ-A-250</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Heat# 68968/01/00</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DA 1</u>	SIGNED OFF BY: _____		
DATE: <u>9-85 JAN 16 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/4 OR AMS-QQ-A-250/4

OR AMS-4037

OR ASTM B209

PART NUMBER: M2024T3S | XXX | THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M2024T3S.063

PREFERRED SIZE: XXX BY 4FT BY 10FT

RELEASED  
R 2009-03-03

B	REFORMAT DWG. ADD ASTM B209 SPEC (ZN DB-1), PAR 09-020A	CP	09.07.07
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.07		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B	
DRAWING NO. M2024T3S		SHEET 1 OF 1	
TITLE		SCALE	
2024-T3 SHEET SPEC		NTS	
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 72024735-080  
 DATE: JAN 16 2018

PO / BATCH NO. 038754/8032210

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 48A2  
 QUANTITY INSPECTED: 48A2  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .080  
 THICKNESS RECEIVED: .080  
 SHEET SIZE ORDERED: 4X12  
 SHEET SIZE RECEIVED: 4X12

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	QQ-A-250
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	Heat# 223973B9
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**SPECIFICATION CONTROL DRAWING**

PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/4 OR AMS-QQ-A-250/4  
OR ASTM B209

PART NUMBER: M2024T3S | XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M2024T3S.063

PREFERRED SIZE: .XXX BY 4FT BY 10FT

**RELEASED**  
2009-08-23  
JND

B	REFORMAT DWG. ADD ASTM B209 SPEC (2N 08-1). PAR	CP	09.07.07
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.07		
DART AEROSPACE LTD		REV. B	
DRAWING NO. M2024T3S		SHEET 1 OF 1	
TITLE 2024-T3 SHEET SPEC		SCALE NTS	
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S116A

PO / BATCH NO.: 038754/503221

DATE: JAN 16 2018

MATERIAL CERT REC'D: YES

THICKNESS ORDERED: 0.125

QUANTITY RECEIVED: 64PI2

THICKNESS RECEIVED: 0.125

QUANTITY INSPECTED: 64PI2

SHEET SIZE ORDERED: 4X8

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	<u>As per A240</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	<u>Heat # 4397</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89</u> <u>JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED

SPECIFICATION:

MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240

FINISH:

FINISH IDENTIFIER  
UNPOLISHED No. 1  
UNPOLISHED No. 2D  
UNPOLISHED No. 2B  
POLISHED No. 3  
POLISHED No. 4  
BUFFED No. 6  
BUFFED No. 7  
BUFFED No. 8

PART NUMBER:

M304S TT GA #P  
[GA]

WHERE "TT" = GAUGE THICKNESS  
WHERE "P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.223 - 0.243
3	0.2500	0.236 - 0.263
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-322

D	ADDED GAUGES 0.7.	AJS	15.01.06
C	DEFINED FINISH OPTION (2N CB) AND EXAMPLE OF MATERIAL FIN WITH FINISH OTHER THAN 2B (2N B5).	MB	12.09.20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (2N DB-1). ADD GAUGE REF (CB-1). REF PAR 08-020A	CP	09.06.01
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	15.01.06		
DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA			
DRAWING NO. M304S			
TITLE 304/316 SS SHEET			
REV. D			
SHEET 1 OF 1			
SCALE NTS			
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 73045126A  
 DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032212

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 32<sup>1/2</sup>  
 QUANTITY INSPECTED: 32<sup>1/2</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.100  
 THICKNESS RECEIVED: 0.100  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Aston A240</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat# 471Y</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>	<b>ENGINEERING SIGNOFF (if required)</b>
INSPECTED BY: <u>11</u> <u>9-89</u> DATE: <u>JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED

SPECIFICATION:

MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240

FINISH:

FINISH  
UNPOLISHED No. 1  
UNPOLISHED No. 2D  
UNPOLISHED No. 2B  
POLISHED No. 3  
POLISHED No. 4  
BUFFED No. 6  
BUFFED No. 7  
BUFFED No. 8

DART M-NUMBER  
IDENTIFIER

1P  
2D  
NONE  
3P  
4P  
6P  
7P  
8P

PART NUMBER:

M304S TT GA #P  
(GA)

WHERE "TT" = GAUGE THICKNESS  
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.08375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-122

REV.	DESCRIPTION	DATE
D	ADDED GAUGES 0-7.	AJS 15 01 06
C	DEFINED FINISH OPTION (ZN C8) AND EXAMPLE OF MATERIAL P/N WITH FINISH OTHER THAN 2B (ZN B5).	MB 12 09 20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C8-1), REF PAR 08-020A	CP 09 06 01
A	NEW ISSUE	DS 01 09 24
DESIGN	DS	BY
DRAWN	AJS	DATE
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	15.01.06	

DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA  
DRAWING NO. M304S  
TITLE 304/316 SS SHEET  
SCALE SHEET 1 OF 1  
NTS

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3045186A  
 DATE: JAN 16 2018

PO / BATCH NO.: 038754/5032213

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 160 P12  
 QUANTITY INSPECTED: 160 P12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .050  
 THICKNESS RECEIVED: .050  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>A6 Tm A240</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>Heat # 088E</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 JAN 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED

SPECIFICATION:

MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240

FINISH:

FINISH  
UNPOLISHED No. 1  
UNPOLISHED No. 2D  
UNPOLISHED No. 2B  
POLISHED No. 3  
POLISHED No. 4  
BUFFED No. 6  
BUFFED No. 7  
BUFFED No. 8

DART M-NUMBER  
IDENTIFIER  
1P  
2D  
NONE  
3P  
4P  
6P  
7P  
8P

PART NUMBER:

M304S1TTGA #P  
[GA]

WHERE "TT" = GAUGE THICKNESS  
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.140
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.168
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.226
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED  
2015 FEB 04  
ECS 15-122

D	ADDED GAUGES 0-7	AJS	15 01 06
C	DEFINED FINISH OPTION (ZN C8) AND EXAMPLE OF MATERIAL FIN WITH FINISH OTHER THAN 2B (ZN B5)	MB	12 09 20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C8-1), REF PAR 08-020A	CP	09 06 01
A	NEW ISSUE	DS	01 09 24
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	15.01.06		

DART AEROSPACE LTD	
HAWKESBURY, ONTARIO, CANADA	
REV. D	SHEET 1 OF 1
M304S	SCALE
304/316 SS SHEET	NTS
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# 3008

TRA 1482

FEH-16948-3008488

FEH-16948-3008488

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STEEL**

ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No. Item & Date: B065352 000080 2017/06/27	Shipment No. & Date: 1000245040 2017/06/27	TC No., Date & Time: ESA-411342 2017/06/28 - 21:24:47												
Sold to Customer Name and Address: LES ACHIER TRANSBEC (1997) L.TEE BOULEVARD CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 6R2	Ship to Customer Name and Address: LES ACHIER TRANSBEC (1997) L.TEE RUE JEAN COUTU 350 VARENNES, Quebec, Canada J9X 4P2	Customer PO No./Item: G-4623478 BOL NO.: 1000245948 Cust. Part No.: L81 TRANSPORT INC - 814WB 89145												
Customer Specification: HR STEEL SHEET Carbon CQ / CS ASTM A7011 CS 15 B (2015) Top Semi Critical Surface Improved Shape Gauge type MIN - 0/+ 0.0080 * Coil break considered														
Supplementary Instructions: Test Cert 1: mtr@colfax.ca Test Cert 2: nathalie.legault@achiertransbec.com														
Insp T/R: Chemical Analysis		Cust Use: GENERAL MANUFACTURING												
ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS FULL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (709) 843-4033 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT WAS GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.														
MEETS EN 10204 3.1 ISO QUALITY AND ENVIRONMENTAL CERTIFICATE AVAILABLE AT WWW.ALGOMA.COM														
ALL HEATS FULLY KILLED. HEATS INDICATED WITH (*) FINE GRAINED. HEATS INDICATED WITH (x) MEETS CANADA FOR NAFTA duty preference and NAFTA marking purposes														
Dimensions (T x W x L) 0.0370" x 48.000"	Batch No. SRP3330	Heat No.-MS 025204-03												
Quantity 39,500 LB														
Page 1														
CHEMICAL PROPERTIES														
MIN (MS, 0.025)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	Ti	N
0.025204	0.05	0.24	0.005	0.003	0.020	0.02	0.02	0.03	0.00	0.028	0.000	0.000	0.001	0.0052

KASHIF REHMAN  
MANAGER METALLURGICAL SERVICES

"WARNING" THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CANNOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE. EXCLUSIONS: DEARBY OR CALCULATIONS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

Date: 2017/06/28 Time: 22:05:10 Page: 01 of 1

PO.6958



**“首钢”牌产品质量证明书**  
QUALITY CERTIFICATE OF “SHOUGANG” BRAND

青洲英坭地址: 中国北京前门外山区  
 ADD: QP SHINGHONG GROUP, SHIJINGSHAN DISTRICT, BEIJING, CHINA  
 邮政编码: POST CODE: 100061  
 电话: TEL: 7-6610166291600  
 西盘电报传真: EMAIL: SOTMAIL.SHOUGHONG.COM.CN  
 邮编: 地址: 中国河北省唐山市唐海工业园区 06350  
 ADD: QP MANUFACTURE: CANGHETIDIAN INDUSTRY PARK, TANGSHAN,  
 HUBEI, P.R. CHINA 06350

製造廠：首钢集团：首钢京唐钢铁联合有限责任公司  
MANUFACTURER: SHOUGANG GROUP, SHOUGANG JINTANG UNITED IRON & STEEL CO.LTD

客户名称 CUSTOMER	中国铁路西安局工程处					合同号 CONTRACT NO.					000019001-00000100(166388)					许可证编号 LICENSE NO.										
购买单位 PURCHASER	中铁七局(湖南)轨道交通有限公司					供应品名 COMMODITY OF SUPPLY					螺纹钢					证书编号 CERTIFICATE NO.					Z1600820210					
产品规格 PRODUCT SPECIFICATION	冷扎卷 Cold Rolled Strip ASTM A106/A106M-2014					交货日期 DATE OF DELIVERY					2018-09-20 10:28:18					记录号 RECORD NO.					88-98-41A					
						钢号 STEEL GRADE					CQ Type B					页码 PAGE NO.					共1页 第1页					
材料号 COL NO.	炉架号 HEAT NO.	表面 处理 S.Q.	尺寸 Size (MM)		件数 PCS	重量 WT. TON	化学成分 CHEMICAL COMPOSITION %												机械性能 MECHANICAL PROPERTIES							
			厚度 THK.	宽度 WIDTH			C	SI	Mn	P	S	Al <sub>T</sub>	Ni	Mo	N	屈服强度 Y.S. N/mm²	抗拉强度 T.B. N/mm²	断后伸长率 % EL Elongation %	A50	B50	可焊性 WELDING	硬度 Hardness	HV	DH		
16B22008220020	162C05513	F8	1.12	1218	1	12.280	870	✓	22	12	0	30	13	10	15	182										
16B22008227020	162B06571	F8	1.12	1218	1	12.030	945	✓	20	14	0	09	12	10	20	209										
16B22008227010	162B06571	F8J	1.12	1218	1	12.440	240	✓	25	10	0	20	12	10	20	182										
16B22008225210	162B06571	F8J	1.12	1218	1	12.520	240	✓	20	10	0	20	12	10	20	182										
16B22008225410	162C05513	F8	1.12	1218	1	12.390	972	✓	23	12	0	30	13	10	15	182										
16B22008225520	162B05571	F8	1.12	1218	1	12.340	843	✓	20	10	0	09	12	10	20	182										
总计 TOTAL					8	74.370																				
备注 REMARKS: <div>发件日期: 2018-09-20 ROD: </div>																										

P07665

HEAT: 7PB0060630 ✓

7x

#3282  
FEB-20644  
P.O. - AC783/ ET MC 7665 S.O. - 394862  
ACTER OVERSEAS INC

合同编号: D00012622  
规格 (mm): 0.84\*1219  
标准: ASTM  
G717-21-V9 MTC HBIS 钢铁股份有限公司唐山分公司

### 质量证明书 QUALITY CERTIFICATE

质量证明书号: IQCK-Q-03-04(102)  
系统编号: 0061063793.000010  
系统NO:  
总重量 (t): 18.645  
TOTAL WEIGHT

产品名称: 冷轧低碳钢带  
PRODUCT: Cold rolled low carbon steel strip

订货单位: 唐山钢铁集团有限责任公司  
CUSTOMER  
收货单位: 唐山钢铁集团有限责任公司 (唐山) (曹妃甸-港仁-黄城代直钢带接收)  
PURCHASER

中 号: 冀B-12372  
证书号: 12-201702170484  
CERTIFICATE NO.

CERTIFICATE NO.																						
批次号 ROLLID NO.	卷号 COIL NO.	炉批号 FURNACE NO.	牌号 GRADE	重量 WEIGHT (t)	表面质量 SURFACE QUALITY	表面结构 SURFACE FINISH	热处理制度 ANNEAL	化学成分 (%) CHEMICAL COMPOSITION														
								C	Si	Mn	S	P	Cr	Ni	Cu	Mo	Al	N	Nb	V	Ti	
7PB0060630	7Y114142P000	7201016	CS8	18.645			BAE	0.03	0.020	0.17	0.010	0.017	0.01	0.00	0.01	0.00	0.025	0.0029	0.000	0.003	0.001	

地址: 中国河北省唐山市路北区滨河路9号 销售电话: +86 315-2703330 打印人: 唐山钢铁集团有限责任公司  
ADD: No.9 Binhe Road, Lubei District Tangshan, Hebei, China. 售后服务电话: +86 315-2703372  
URL: www.tangsteel.com TELEPHONE: PRINTER:

生产日期: 2017-02-16  
DATE  
交货日期: 2017-02-17  
DELIVERY DATE





HEAT: 7PB 0074460 7

3x

# HBIS 钢铁股份有限公司唐山分公司

## 质量证明书

合同编号: 0000126422

CONTRACT NO.

规格 (mm): 0.84\*1219

DIMENSION

标准: ASTM

STANDARD

订货单位: 唐山钢铁集团有限责任公司

CUSTOMER

收货单位: 唐山钢铁集团有限责任公司 (四期) (曹妃甸-唐山港代运物资)

PLANT/USER

产品名称: 冷轧低碳钢带

PRODUCT: Cold rolled low carbon steel strip

质量记录的号: IQCK-Q-03-04(102)

系统编号: 0081067281600010

系统编号: 20

总重量 (t): 20

TOTAL WEIGHT

车号: 冀AM7230

证明书号: 10-201702280844

CERTIFICATE NO.

批次号 ROLLING NO.	卷号 COIL NO.	炉批号 FURNACE NO.	牌号 GRADE	重量 WEIGHT (t)	表面质量 SURFACE QUALITY	表面缺陷 SURFACE DEFECT	热处理 ANNEAL	化学成分 (%)													
								C	Si	Mn	S	P	Cr	Ni	Cu	Mo	Al	N	Nb	V	Ti
7790074460	77114152P080	7301138	C18	20			BAS	0.05	0.030	0.17	0.000	0.020	0.02	0.00	0.01	0.00	0.025	0.0035	0.000	0.003	0.001

批次号 ROLLING NO.	卷号 COIL NO.	炉批号 FURNACE NO.	抗拉强度 T.S. (MPa) R <sub>m</sub>	屈服强度 Y.S. (MPa) R <sub>eH</sub>	伸长率 EL. (%) A <sub>50mm</sub>	弯曲 B.T.	硬度 HARDNESS
7790074460	77114152P080	7301138	335	203	30.5		

注: Y.S.-YIELD STRENGTH T.S.-TENSILE STRENGTH EL.-ELONGATION B.T.-BEND TEST  
 1. 无质量证明书无效。 Certificate with quality proof seal.  
 2. 本证明书本产品按照相应标准和规范进行制造和检验。 We certify that the products have been produced and inspected according to standard and agreement.  
 3. 尺寸合格。 Dimensional tolerances as dimensions are in accordance with standard.

地址: 中国河北省唐山市路北区长安道9号

ADD: No.9 Dabao Road, Lubei District Tangshan, Hebei, China

URL: www.hbis.com.cn

销售电话: +86 315-2703330

售后服务电话: +86 315-2703372

TELEPHONE

打印人: 唐山钢铁集团有限责任公司

PRINTED

生产日期: 2017-02-27

DATE

交货日期: 2017-02-28

DELIVERY DATE



P.O. 7665  
H8351

Form-20648  
#3280  
ACIER QUALITEZ INC P.O. - 427657 RT MC 7665 S.O. - 394862



00.69188 112

10.12663

**KAISER**  
**ALUMINUM**  
Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

# CERTIFIED TEST REPORT

Serial Number  
4475188

CUSTOMER PO NUMBER: C74502-5		WORK PACKAGE: CUSTOMER PART NUMBER: 104019/11		SHIP RUNLOAD: GOVT CONTRACT NUMBER:	
KAISER ORDER NO: 1229517-5		SHIP DATE: 23-AUG-2017		CLAD: T3	
WEIGHT SHIPPED: 3292 LB		QUANTITY: 146 PCS EST.		TRUCK BAL: 2068610	
		SHIP DATE: 23-AUG-2017		PRODUCT DESCRIPTION: HT Flat Sheet	
		QUANTITY: 146 PCS EST.		GAUGE: 0.0320 IN	
		TRUCK BAL: 2068610		DIAMETER MIN: 48.000 IN	
				LENGTH: 144.000 IN	
				(3657.6 MM)	

MHU 2144356: LOT 237171B4: 146 pieces: 0.03519

## Certified Specifications

AMS 4037/RevD  
CMMP 019/RevD  
AMS-00-A-250/4/RevB  
CMMP 025/RevV  
ASTM B 209/Rev14

Test Code: 1504

Lot: 237171B4

Cast 495

Drop 72

Test Results

Ingot 4

Melted in USA

(ASTM B8/8557)

(EN 2002-1)

Tensile:

Temper

T3

Dir / # Tests

LT / 2 (Min:Max)

Ultimate KSI (MPa)

67.8 : 68.1

(467 : 470)

Yield KSI (MPa)

46.2 : 46.3

(319 : 319)

Elongation %

17.9 : 18.0

(ASTM E1251)

Chemistry:

Actual(wt%)

SI

FE

CU

MIN

MG

CR

ZN

TI

V

ZR

TOT

OTHER

0.07

0.20

4.8

0.56

1.3

0.01

0.17

0.02

0.01

0.01

0.02

0.01

0.01

0.02

0.02

0.02

0.02

0.02

2024

MIN(wt%)

0.00

0.00

3.8

0.30

1.2

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

Aluminum Remainder

# CERTIFIED TEST REPORT

**Serial Number**  
**4475188**

**Trentwood Works - Spokane, WA 99215**  
**Phone: (800) 367-2586**

## CERTIFICATION

[illegible]

James Pennington

**JAMES HEMENWAY, TECHNICAL PROCESS MANAGER**

#3117 D.R.

**KAISER  
ALUMINUM**  
Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

**CERTIFIED TEST REPORT**

Serial Number  
4465899

CUSTOMER PO NUMBER: C74254-4	WORK PACKAGE: 1236242-4	CUSTOMER PART NUMBER: 2950 LB	SHIP DATE: 7-JUN-2017	SHIP RUMLOAD: 103945/13	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1236242-4	QUANTITY: 106 PCS EST.	TRUCKSULE: 2067265	ALLOW: 2024	TEMPER: T3	PRODUCT DESCRIPTION: HT Flat Sheet
WEIGHT SHIPPED: 2950 LB	GAUGE: 0.0400 IN	QUARTERWIDE: 48.000 IN	CLAD: BARE	LENGTH: 144.000 IN	(3657.8 MM)

MHU 2116170; LOT/21954787; 106 pieces; 0203517

**Certified Specifications**

✓ AMS 4037/RevQ  
CMMP 019/RevD  
✓ AMS-00-A-250/4/Rev8  
✓ CMMP 025/RevV  
✓ ASTM B 209/Rev14

Test Code: 1504  
Lot: 21954787 Cast 433  
(ASTM B209/Rev14)  
(EN 2002-1)

Melted in USA

Tensile:		Dir / # Tests		Ultimate KSI (MPa)		Yield KSI (MPa)		Elongation %	
T3		LT / 2 (Min:Max)		68.3 : 69.0 (471 : 476)		46.8 : 47.2 (323 : 325)		17.5 : 19.1	
{ASTM E1251}									
Chemistry:		FE		MG		ZN		V	
Actual(wt%)		0.08		1.3		0.01		0.01	
ALLOY LIMITS									
SI		CU		MN		CR		TI	
0.00		3.8		0.30		1.2		0.00	
0.50		4.9		0.9		0.10		0.05	
Aluminum Remainder									
2024									
MIN(wt%)		0.00		0.30		0.00		0.00	
MAX(wt%)		0.50		0.9		0.10		0.05	
OTHER		FE		MG		ZN		V	
TOT		0.00		1.2		0.00		0.00	
EACH		0.00		0.30		0.00		0.00	
TOT		0.00		0.9		0.10		0.05	
MAX		0.00		0.30		0.00		0.00	

**KAISER  
ALUMINUM**

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

**CERTIFIED TEST REPORT**

Serial Number  
4465899

**CERTIFICATION**

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:  
• has been inspected, tested, and found to be in accordance with the requirements of the specifications indicated herein.  
• All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For material dimensions outside specification limits, mechanical properties are as shown herein and physical composition meets applicable specifications.  
• All material is produced in accordance with the requirements of the specifications indicated herein.  
• All material is produced in the United States of America or a qualifying country per OFAS 225.872.1(a), and meets the requirements of OFAS 282.225 for domestic content.  
• All material has been thermally processed in compliance with AMS 2772, where applicable.  
• All material has been processed in accordance with ASTM B221, Type 3A.  
• All material is produced in accordance with the requirements of the specifications indicated herein.  
• Is in compliance with European Chemical Agency (ECHA), REACH regulation (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.  
• Is in compliance with RoHS 2, European Union Directive 2011/65/EU.  
• Is free of lead, mercury, cadmium, and hexavalent chromium.  
• Is free of weld repair.  
• Meets the reporting requirements of EIA 1030A, Type 3.1.  
Any warranty is limited to that shown on Kaiser Aluminum's standard report name and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of Kaiser Aluminum. The recording of data, inspection or test results, or other statements on this certificate may be published as a false and misleading statement.

*James Hemenway*

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

#3142



Abnahmeprüfzeugnis 3.1 (EN 10204)  
Inspection certificate - mill certificate

Nr.: 85170692 01/1

Rev.: 0

Seite / page: 1 von / of 3

Datum / date: 2015 05 07

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, NADCAP

Bestell Nr. / order no.:	C 69965
Datum / date:	2015 02 05
Auftragsbest. Nr. / order confirm no.:	688222
Datum / date:	2015 02 09
Lieferschein Nr. / delivery note:	85170692
Datum / date:	2015 05 29

Produkt / product	Bedingungen / terms
Form / form: Sheet Werkstoff / material: 2024 Zustand / temper.: T3 Dim. / dim.: [inch] 0.050x48.00x144.00	Technische Lieferbedingungen / techn. spec.: AMS-QQ-A-250/AA, 08.1988 ASTM B-208 - 10 AMS 4037Q, 12.2014 WL 3.1354-1, 12.1987 Cessna CMMPO19, Rev. D, 09-07-01 Cessna CMMPO25, Rev. U, 05-26-11 ANSI H35.2-2013 ABM 1-6015, Issue 2, OCT 2004 AIR8048-110, 26 December 1978 Sondervorschrift / special terms:

AB-Proc. and -item	Batch Lot / Teillos Lieferlos / Part	Guage Nr. / test no.	Werkstoff / material	Kallis packno.	Gewicht netto / weight net	Stk. / pcs.
05	689680100	01/0067462/5	2024	6882220002	2427,249 lbs	70
05	689680100	01/0067462/5	2024	6882220003	2215,608 lbs	64

Chemische Zusammensetzung (1% Gewichtseinheiten) / Chemical composition (1% weight proportion (CEN))

Guage Nr. / test no.	material	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each
01/0067462/5	2024	-	-	3.8	0.30	1.2	-	-	-	-
	spec. min.	0.50	0.50	4.9	0.90	1.8	0.10	0.25	0.15	0.20
	spec. max.	0.10	0.11	4.5	0.52	1.5	0.01	0.16	0.04	0.05
	actual	0.04	0.15	0.04	0.04	0.04	0.04	0.04	0.04	0.02
	spec. min.	-	-	-	-	-	-	-	-	-
	spec. max.	-	-	-	-	-	-	-	-	-
	actual	-	-	-	-	-	-	-	-	-

0050449  
0050450  
red

## Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85170692 01 / 1

Rev.: 0

Seite / page: 2 von / of 3

Datum / date: 2015 05 07

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, MACCIP

Zugprüfung / Tensile test LT						
Blatt/Los Lot/No.	Zustand temper	Richtung direction	Tests	UTS [N/mm <sup>2</sup> ]	YS [N/mm <sup>2</sup> ]	AZ <sup>o</sup> [%]
			spec.min.	63,8	42,1	15
			spec.max.	-	-	-
69968/01	T3	LT	6	from 67,3	48,6	17
69968/01	T3	LT	10	67,7	49,0	18

Biege- / Leitmähigkeit / OK / other: Conducity test						
Blatt/Los Lot/No.	Zustand temper	Tests	L / ec [% IACS]	dL / dec per batch [% IACS]		
		spec.min.	-	-		
		spec.max.	32,8	2,5		
69968/01	T3	18	from 30,2	0,3		
69968/01	T3	10	30,5	0,3		

Sonstige Prüfungen / other tests						
Biegeversuch: OK / Transverse bend test: OK.						
Interkristalline Korrosion: OK / Intergranular corrosion: OK.						
Maßkontrolle: OK / Dimensional Check: OK.						
Oberfläche: OK / Surface inspection: OK.						

Bemerkungen / notes						
Die Dimensionstoleranzen entsprechen ANSI XXX / As standard, dimensional tolerances are to ANSI XXX						

## Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85170692 01 / 1

Rev.: 0

Seite / page: 3 von / of 3

Datum / date: 2015 05 07

Zertifikat nach / certified to ISO 9001, ISO/TS 16949, ENAS 9102, ISO 14001, ISO 14001

Ausgestellt nach Airbus Zulassung Nr. 30272.  
Wir bestätigen, dass die gesamte Lieferung unter Einhaltung und soweit oben nicht anders dargelegt aller Forderungen (Spezifikationen, Zeichnungen, Aufträge) hergestellt und geprüft wurde.

Das Qualitätsmanagementsystem erfüllt die Anforderungen der AUK/SA001-3.

Hergestellt, kontrolliert und geprüft nach Hawker Beechcraft HBIFSA/PARTJ0771

Agusta Westland Genehmigung Lieferantennummer V21275

Issued under Airbus Approval No. 30272.

Certified that the whole of the supplies detailed hereon have been manufactured, inspected, tested and unless otherwise stated above conform in all respects to the Specifications, Drawings and Contract.

Order relevant thereto The Quality Management System arrangements in respect of these supplies comply with the

requirements of AUK/SA001-3.

Manufactured, inspected and tested according Hawker Beechcraft HBIFSA/PARTJ0771

Agusta Westland approval supplier code V21275

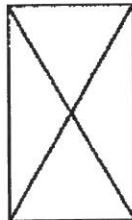
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.

We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Hersteller / manufacturer	AMAG-ROLLING
Hersteller / manufacturer	h.rendi@amag.at

Hersteller / goods origin: The goods are of Austrian origin.

Maschine / machine: Gültig ohne Unterschrift / Automated - valid without being signed



# 3192

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4466392

CUSTOMER PO NUMBER: C74254-5		WORK PACKAGE: CUSTOMER PART NUMBER: 103950/20		SHIP RUN/LOAD: GOVT CONTRACT NUMBER:	
KAISER ORDER NO: 1236242-5		SHIP DATE: 12-JUN-2011		TEMPER: T3	
QUANTITY: 58 PCS EST.		TRUCK BLR: 2067334		PRODUCT DESCRIPTION: Kaiser Stretched	
WEIGHT SHIPPED: 3276 LB		GAUGE: 0.0600 IN (1.524 MM)		DIA/METER WIDTH: 48.000 IN (1219.2 MM)	
				LENGTH: 144.000 IN (3657.6 MM)	

MHU 2116107 LOT 22397389: 58 pieces: *BA9511*

### Certified Specifications

✓ AMS 4037/RevQ  
CMMP 019/RevD  
✓ AMS-OD-A-250/4/RevB  
✓ CMMP 025/RevV  
✓ ASTM B 209/Rev14

Test Code: *1506*

Lot: 22397389 Cast 433

(ASTM B8/B557)

Temper  
T3

### Test Results

Ingot 4

Drop 77

Melted in USA

Dir / # Tests  
LT / 2 (Min:Max)  
Ultimate KSI (MPa)  
58.1 : 68.2  
(470 : 470)Yield KSI (MPa)  
47.3 : 47.5  
(326 : 328)Elongation %  
18.1 : 18.3

(ASTM E1251)

Chemistry:

Actual(wt%)

SI 0.10

FE 0.19

CU 4.7

MN 0.58

MG 1.4

CR 0.01

ZN 0.09

TI 0.02

V 0.01

OTHER

TOT 0.05

### ALLOY LIMITS

2024

MIN(wt%)

0.00

0.30

1.2

0.00

0.00

0.00

0.05

0.05

0.15

0.05

0.05

0.05

0.05

Aluminum Remainder



# CERTIFIED TEST REPORT

Serial Number  
4466392

**Trentwood Works - Spokane, WA 99215**  
**Phone: (800) 367-2586**

## CERTIFICATION

[illegible]

James Fenimore

**JAMES HEMENWAY, TECHNICAL PROCESS MANAGER**



#3407

TRA-1725



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K1Z3  
Canada

## METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

019204

Certificate: 326764 1

Customer: 007040 102

Date: 8/24/2017 Page: 1

Steel: 304

Finish: 2B

Corrosion: ASTM A262/15 A; 180 Bend-OK

Your Order: P207132

NAS Order: IN 0252387 01

## PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED, UNS 30400  
ASTM A240/A666, A480/16b, A666/15, ASME SA240/15, SA480/15, SA666/15  
CHEM ONLY ON FOLLOWING ASTM: A276/17, A479/17, A484/16, A312/16  
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13  
AMS 5513J XMRK; MIL-B-5059D AMEND3 (X CROWN MEAS)  
NACE MR0175/ISO 15156-3:2009 A, MR0103/07, QCS766D-A X MAG PERM  
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

## REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.  
EN 10204:2004 3.1, RoHS 1 & 2 Compliant  
Material is Free of Radioactive Contamination  
Steel Making Process: EAF, AOD, & Cont. Casting  
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001  
\*Melted & Manufactured in the USA; Mat'l is DPAAS Compliant

Product Id	Coil #	Skid # Thickness	Width	Weight	-----Length-----	Mark	Pieces	Commodity Code
03471Y C	03471Y C	.1050	48.0000	15,380	COIL	1	1	

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/14a

HEAT	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
471Y	US	.0437	18.0470	.3755	1.7995	.3515	.0815	8.0435	.0295	.0017
SI %										
.3300										

## MECHANICAL PROPERTIES

Product Id#	Coil #	1 d 0 r	UTS KSI	20C .2% YS KSI	20C ELONG %-2"	Hard RB	Tail Hard
03471Y C	03471Y C	F T	98.57	51.23	47.17	90.00	88.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.

KRIS LARK

8/29/2017

#3425

TRA-1845



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K1Z3  
Canada

## METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 231861 2  
Customer: 007035 501

Date: 10/26/2016 Page: 1  
Steel: 304  
Finish: 2B  
Corrosion: ASTM A262/15 A; 180Bend-OK

Your Order: 781026

NAS Order: PN 0069821 14

### PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED; UNS 30400  
ASME A240/304, A480/15, A666/15; ASME SA240/15, SA480/15, SA666/15  
CHEM ONLY ON FOLLOWING ASTM: A276/15, A479/15, A484/15, A312/15  
CHEM ONLY ON FOLLOWING ASME: SA312/15, SA479/15  
AMS 5513J MARK; MIL-S-5059D AMEND3 (X CROWN MEAS)  
NACE MR0175/ISO 15156-1:2009 A, MR0103/07; QQST660-A X MAG PERM  
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

### REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.  
EN 10204:2004 3.1; RoHS 1 & 2 Compliant  
Material is Free of Radioactive Contamination  
Steel Making Process: EAF, AOD, & Cont. Casting  
Product Mfg. by a Quality Mfg. Sys. in Conf. w/ISO 9001  
\*Melted & Manufactured in the USA; Mat'l is DPAE Compliant

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
03088E B	03088E B		.0480	48.0000	20,720	COIL	1	1	74261495

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CN(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/14a

HEAT	CH	C %	CR %	CU %	FE %	MO %	N %	NI %	P %	S %
088E	US	.0450	18.0445	.4925	1.6575	.3220	.0598	8.0190	.0290	.0010
		SI %								
		.2470								

### MECHANICAL PROPERTIES

Product Id#	Coil #	1 d o f e k	UTS KSI	20C .2% YS KSI	20C ELONG % 1/2"	Hard RB	Tail Hard	Grain No.
03088E B	03088E B	P T	100.16	52.12	47.23	88.00	84.00	10.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.

KRIS LARK

10/26/2016